APRIL/MAY 2024

BEL51/CEL51 — MICROPROCESSOR AND ITS APPLICATIONS

Time : Three hours Maximum : 75 marks

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SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Define ALU.
2. What is flags?
3. What is subroutine?
4. Define stack.
5. What is instruction cycle?
6. Define machine cycle.
7. What are the basic modes of operation of 8255?
8. What is interfacing?
9. What is the output modes used in 8279?
10. Draw the status word format for 8254.

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SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Draw the pin diagram of 8085 and explain it.

Or

(b) Write the assembly language program for 8 bit subtraction.

12. (a) Explain the stack related instruction.

Or

(b) Write short notes on subroutines.

13. (a) Explain the memory interfacing.

Or

(b) Draw the instruction cycle and explain it.

14. (a) Explain the SIM instructions.

Or

(b) Draw the control word format of 8255 and explain it.

15. (a) Discuss the programmable interval timer.

Or

(b) Explain how a stepper motor can be interfaced to 8085.

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SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explain the architecture of 8085 microprocessor with neat diagram.

17. Write an assembly program of BCD to binary conversion.

18. Draw and explain timing diagram for memory read, memory write cycles of 8085.

19. Describe the programmable peripheral interface (8255).

20. With neat sketch explain the operation of keyboard and display controller 8279.

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